```
=> d his

      (FILE 'HOME' ENTERED AT 15:14:42 ON 06 SEP 2006)

      FILE 'REGISTRY' ENTERED AT 15:14:54 ON 06 SEP 2006
L1              STRUCTURE UPLOADED
L2              0 S L1 SSS SAM

      FILE 'HOME' ENTERED AT 15:15:38 ON 06 SEP 2006

      FILE 'REGISTRY' ENTERED AT 15:16:57 ON 06 SEP 2006
L3              STRUCTURE UPLOADED
L4              0 S L3 SSS SAM
L5              10 S L3 SSS FULL

      FILE 'CAPLUS' ENTERED AT 15:17:46 ON 06 SEP 2006

      FILE 'REGISTRY' ENTERED AT 15:18:00 ON 06 SEP 2006

      FILE 'CAPLUS' ENTERED AT 15:18:07 ON 06 SEP 2006

      FILE 'HCAPLUS' ENTERED AT 15:18:44 ON 06 SEP 2006
L6              9 S L5

      FILE 'HOME' ENTERED AT 15:20:12 ON 06 SEP 2006

      FILE 'REGISTRY' ENTERED AT 15:29:57 ON 06 SEP 2006
L7              1 S 375371-24-7/RN
                SET NOTICE 1 DISPLAY
                SET NOTICE LOGIN DISPLAY

      FILE 'HOME' ENTERED AT 15:30:14 ON 06 SEP 2006

      FILE 'HCAPLUS' ENTERED AT 15:36:51 ON 06 SEP 2006

      FILE 'HOME' ENTERED AT 15:37:07 ON 06 SEP 2006

      FILE 'REGISTRY' ENTERED AT 16:23:30 ON 06 SEP 2006
L8              STRUCTURE UPLOADED
L9              0 S L8 SSS SAM
L10             2 S L8 SSS FULL

      FILE 'HCAPLUS' ENTERED AT 16:24:34 ON 06 SEP 2006

      FILE 'REGISTRY' ENTERED AT 16:24:53 ON 06 SEP 2006

      FILE 'HCAPLUS' ENTERED AT 16:25:00 ON 06 SEP 2006
L11             2 S L10

      FILE 'HCAPLUS' ENTERED AT 16:25:30 ON 06 SEP 2006

=> s l10
L12             2 L10

=> d ibib abs hitstr 1-2
```

chain nodes :
11   12   13   14 ·15   16   17   20   21   22   23   28
ring nodes :
1   2   3   4   5   6   7   8   9   10
chain bonds :
7-11   9-12   13-14   13-17   14-15   15-16   20-21   21-22   22-23
ring bonds :
1-2   1-6   1-10   2-3   3-4   4-5   4-10   5-6   5-7   6-9   7-8   8-9
exact/norm bonds :
1-2   1-6   1-10   2-3   3-4   4-5   4-10   5-6   5-7   6-9   7-8   7-11   8-9   9-12   13-14   13-17   14-15
  15-16   20-21   21-22   22-23

G1:A,Cb,Cy,Hy,Id,Ak,C,P,Si,B
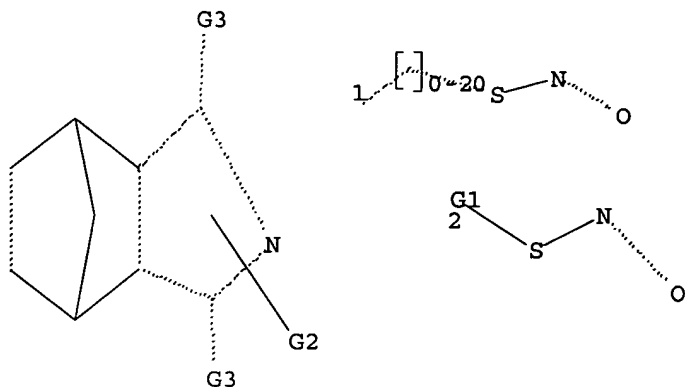
G2:[*1],[*2]

G3:O,S

Match level :
1:Atom   2:Atom   3:Atom   4:Atom   5:Atom   6:Atom   7:Atom   8:Atom   9:Atom   10:Atom   11:CLASS
12:CLASS   13:CLASS   14:CLASS   15:CLASS   16:CLASS   17:CLASS   20:CLASS   21:CLASS   22:CLASS
23:CLASS   28:CLASS   29:CLASS

L8   STRUCTURE UPLOADED

```
=> d l8
L8 HAS NO ANSWERS
L8              STR
```



```
G1 A,Cb,Cy,Hy,Id,Ak,C,P,Si,B

G2 [@1],[@2]

G3 O,S
```

Structure attributes must be viewed using STN Express query preparation.

```
=> s l8 sss sam
SAMPLE SEARCH INITIATED 16:24:12 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -        560 TO ITERATE

100.0% PROCESSED       560 ITERATIONS                          0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:   ONLINE   **COMPLETE**
                         BATCH    **COMPLETE**
PROJECTED ITERATIONS:         9781 TO      12619
PROJECTED ANSWERS:               0 TO          0

L9              0 SEA SSS SAM L8

=> s l8 sss full
FULL SEARCH INITIATED 16:24:27 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    10896 TO ITERATE

100.0% PROCESSED     10896 ITERATIONS                          2 ANSWERS
SEARCH TIME: 00.00.01

L10             2 SEA SSS FUL L8

=> fil hcaplus
COST IN U.S. DOLLARS                        SINCE FILE      TOTAL
                                              ENTRY        SESSION
FULL ESTIMATED COST                          167.38       406.11

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  SINCE FILE      TOTAL
                                              ENTRY        SESSION
CA SUBSCRIBER PRICE                            0.00        -6.75
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FILE COVERS 1907 - 6 Sep 2006   VOL 145 ISS 11
FILE LAST UPDATED: 5 Sep 2006   (20060905/ED)

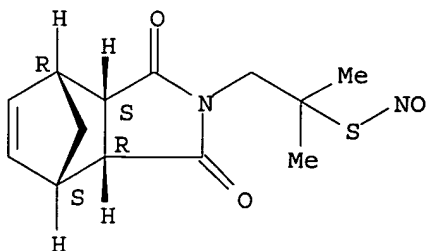New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d scan
YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:y

L10   2 ANSWERS   REGISTRY COPYRIGHT 2006 ACS on STN
IN   Thionitrous acid (HNOS), S-[2-[(3aR,4S,7R,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-
      dioxo-4,7-methano-2H-isoindol-2-yl]-1,1-dimethylethyl] ester, rel- (9CI)
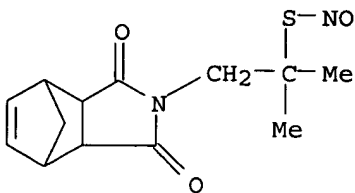MF   C13 H16 N2 O3 S

Relative stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L10   2 ANSWERS   REGISTRY COPYRIGHT 2006 ACS on STN
IN   Thionitrous acid (HNOS), S-[2-(1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-
      methano-2H-isoindol-2-yl)-1,1-dimethylethyl] ester, rel- (9CI)
MF   C13 H16 N2 O3 S

.

=>

=>

=>

=>

=>

=>

=> fil hcaplus
COST IN U.S. DOLLARS   SINCE FILE   TOTAL
                                                 ENTRY   SESSION
FULL ESTIMATED COST   2.53   411.61

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)   SINCE FILE   TOTAL
                                                 ENTRY   SESSION
CA SUBSCRIBER PRICE   0.00   -6.75

FILE 'HCAPLUS' ENTERED AT 16:25:30 ON 06 SEP 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 6 Sep 2006   VOL 145 ISS 11
FILE LAST UPDATED: 5 Sep 2006   (20060905/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d his

      (FILE 'HOME' ENTERED AT 15:14:42 ON 06 SEP 2006)

      FILE 'REGISTRY' ENTERED AT 15:14:54 ON 06 SEP 2006
L1   STRUCTURE UPLOADED
L2   0 S L1 SSS SAM

      FILE 'HOME' ENTERED AT 15:15:38 ON 06 SEP 2006

      FILE 'REGISTRY' ENTERED AT 15:16:57 ON 06 SEP 2006
L3   STRUCTURE UPLOADED
L4   0 S L3 SSS SAM
L5   10 S L3 SSS FULL

      FILE 'CAPLUS' ENTERED AT 15:17:46 ON 06 SEP 2006

      FILE 'REGISTRY' ENTERED AT 15:18:00 ON 06 SEP 2006

```
        FILE 'CAPLUS' ENTERED AT 15:18:07 ON 06 SEP 2006

        FILE 'HCAPLUS' ENTERED AT 15:18:44 ON 06 SEP 2006
L6             9 S L5

        FILE 'HOME' ENTERED AT 15:20:12 ON 06 SEP 2006

        FILE 'REGISTRY' ENTERED AT 15:29:57 ON 06 SEP 2006
L7             1 S 375371-24-7/RN
                  SET NOTICE 1 DISPLAY
                  SET NOTICE LOGIN DISPLAY

        FILE 'HOME' ENTERED AT 15:30:14 ON 06 SEP 2006

        FILE 'HCAPLUS' ENTERED AT 15:36:51 ON 06 SEP 2006

        FILE 'HOME' ENTERED AT 15:37:07 ON 06 SEP 2006

        FILE 'REGISTRY' ENTERED AT 16:23:30 ON 06 SEP 2006
L8             STRUCTURE UPLOADED
L9             0 S L8 SSS SAM
L10            2 S L8 SSS FULL

        FILE 'HCAPLUS' ENTERED AT 16:24:34 ON 06 SEP 2006

        FILE 'REGISTRY' ENTERED AT 16:24:53 ON 06 SEP 2006

        FILE 'HCAPLUS' ENTERED AT 16:25:00 ON 06 SEP 2006
L11            2 S L10

        FILE 'HCAPLUS' ENTERED AT 16:25:30 ON 06 SEP 2006

=> s l10
L12            2 L10

=> d ibib abs hitstr 1-2

L12  ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:           2003:836762  HCAPLUS
DOCUMENT NUMBER:            139:350474
TITLE:                      Preparation and compositions of nitrosothio
                            (hetero)cyclic nitric oxide donors
INVENTOR(S):                Fang, Xinqin; Garvey, David S.; Gaston, Ricky D.; Lin,
                            Chia-en; Ranatunga, Ramani R.; Richardson, Stewart K.;
                            Wang, Tiansheng; Wang, Weiheng; Wey, Shiow-jyi
PATENT ASSIGNEE(S):         Nitromed, Inc., USA
SOURCE:                     PCT Int. Appl., 138 pp.
                            CODEN: PIXXD2
DOCUMENT TYPE:              Patent
LANGUAGE:                   English
FAMILY ACC. NUM. COUNT:     1
PATENT INFORMATION:
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        PATENT NO.          KIND   DATE        APPLICATION NO.          DATE
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        WO 2003086282       A2     20031023    WO 2003-US10562          20030407
        WO 2003086282       A3     20040429
            W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
                CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
                GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
                LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
                PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
                UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
            RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
                KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
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        FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
        BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
   CA 2480832        AA   20031023   CA 2003-2480832        20030407
   AU 2003223491     A1   20031027   AU 2003-223491         20030407
   US 2003203915     A1   20031030   US 2003-407420         20030407
   EP 1497268        A2   20050119   EP 2003-719621         20030407
      R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
          IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
   JP 2005537223     T2   20051208   JP 2003-583309         20030407
PRIORITY APPLN. INFO.:                US 2002-369873P    P  20020405
                                      WO 2003-US10562    W  20030407
OTHER SOURCE(S):       MARPAT 139:350474
GI
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I

II
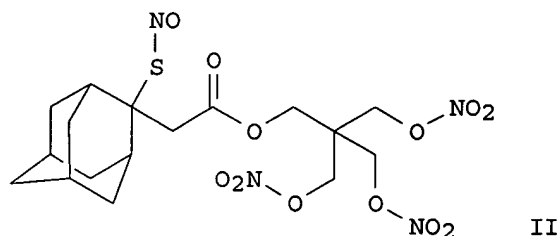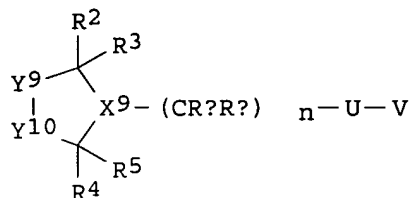
AB   Title compds. I [wherein U = O, S, or NRaRi; V = NO or NO2; X9 = CR10 or
      N; Y9 = CR6R7, NRi, NR25, NRiCR6R7, CR6R7NRi, CR2R3CR6R7, or CR6R7CR2R3;
      Y10 = CR8R9 or CR8R9CR17R18; R2-R9, R17, and R18 = independently H or
      alkyl; or R2R3, R4R5, R6R7, or R8R9 = independently oxo; or R4 and R7
      together with the C's to which they are attached = cycloalkyl; or CR6R7 =
      cycloalkyl; R6 and R9 taken together with the C's to which they are
      attached = (bridged)cycloalkyl, heterocyclyl, or aryl with the proviso
      that R7 and R8 are not present; R4 and R25 taken together with the C and N
      to which they are attached = heterocyclyl; Ra = lone pair of electrons, H,
      or (aryl)alkyl; Re and Rf = independently H, halo, OH, or (un)substituted
      (cyclo)alkyl, heterocyclyl, alkoxy, amino, aryl, etc.; or CReRf =
      heterocyclyl or (bridged) cycloalkyl; Ri = H or (un)substituted alkyl,
      aryl, carboxamido, sulfonamido, etc.; n = 0-3; and pharmaceutically
      acceptable salts thereof] were prepared as novel nitric oxide donors for use
      in compns. comprising at least one nitric oxide donor and optionally at
      least one therapeutic agent. The nitric oxide donors donate, transfer or
      release nitric oxide, and/or elevate endogenous levels of
      endothelium-derived relaxing factor, and/or stimulate endogenous synthesis
      of nitric oxide and/or are substrates for nitric oxide synthase and are
      capable of releasing nitric oxide or indirectly delivering or transferring
      nitric oxide to targeted sites under physiol. conditions (no data). For
      example, 2-[2-(nitrosothio)adamantan-2-yl]acetic acid was esterified with
      3-nitrooxy-2,2-bis(nitrooxymethyl)propan-1-ol in the presence of
      1-[3-(dimethylamino)propyl]-3-ethylcarbodiimide•HCl and
      4-dimethylaminopyridine in CH2Cl2 to give II (18%). The latter inhibited
      proliferation of human coronary artery smooth muscle cells with IC50 of 5
      µM. In general, the nitrosylated compds. tested in this assay
      inhibited proliferation of vascular smooth muscle cells, while the
      corresponding non-nitrosylated derivs. showed no inhibition, slight

inhibition, or exhibited much higher IC50 values. Thus, the invention provides methods for treating cardiovascular diseases, for the inhibition of platelet aggregation and platelet adhesion caused by the exposure of blood to a medical device, for treating pathol. conditions resulting from abnormal cell proliferation, transplantation rejections, autoimmune, inflammatory, proliferative, hyperproliferative, vascular diseases, for reducing scar tissue or for inhibiting wound contraction, particularly the prophylactic and/or therapeutic treatment of restenosis (no data). The invention also provides methods for treating inflammation, pain, fever, gastrointestinal disorders, respiratory disorders, and sexual dysfunctions (no data). In addition, the invention provides novel compns. and kits comprising at least one nitric oxide donor and/or at least one therapeutic agent.

IT   618112-23-5P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
          (nitric oxide donor; preparation and compns. of nitrosothio (hetero)cyclic nitric oxide donors for treatment of cardiovascular, proliferative, inflammatory, and autoimmune disorders and other conditions)

RN   618112-23-5 HCAPLUS
CN   Thionitrous acid (HNOS), S-[2-(1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl)-1,1-dimethylethyl] ester, rel- (9CI) (CA INDEX NAME)
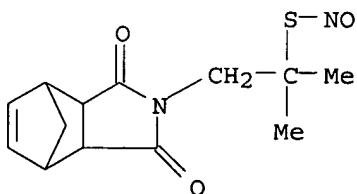
L12   ANSWER 2 OF 2   HCAPLUS   COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:868945 HCAPLUS
DOCUMENT NUMBER: 136:575
TITLE: Infrared thermography and methods of use
INVENTOR(S):   Marek, Przemyslaw A.; Trocha, Andzrej M.
PATENT ASSIGNEE(S):   Nitromed, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 31 pp.
                          CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001046471	A1	20011129	US 2001-850081	20010508
US 6762202	B2	20040713		
US 2004162243	A1	20040819	US 2004-781705	20040220
PRIORITY APPLN. INFO.:			US 2000-202935P	P 20000509
			US 2001-850081	A1 20010508

OTHER SOURCE(S):   MARPAT 136:575
AB   The present invention describes rapid noninvasive methods for measuring vasodilation or changes in blood flow in a patient following administration of at least one compound that donates, transfers or releases nitric oxide, elevates endogenous levels of endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase and/or at least one vasoactive agent. The method comprises the administration of at least one compound that donates, transfers or releases nitric oxide, elevates endogenous levels of

endothelium-derived relaxing factor, stimulates endogenous synthesis of nitric oxide or is a substrate for nitric oxide synthase and/or at least one vasoactive agent to the patient followed by monitoring the temperature change of an area of interest using IR thermog. The present invention provides methods for diagnosing diseases or disorders related to vasodilation and changes in blood flow, such as, sexual dysfunction, Raynaud's syndrome, inflammation, hypertension, gastrointestinal disorders and central nervous system disorders. The sexual dysfunction is preferably female sexual dysfunction and female sexual arousal. The vasoactive agents include potassium channel activators, calcium channel blockers, α-adrenergic receptor antagonists, β-blockers, phosphodiesterase inhibitors, adenosine, ergot alkaloids, vasoactive intestinal peptides, prostaglandins, dopamine agonists, opioid antagonists, endothelin antagonists and thromboxane inhibitors. The present invention can also be used to screen and identify drug candidates for treating diseases, disorders and conditions resulting from vasodilation or changes in blood flow. The present invention also describes compns. comprising at least one S-nitrosothiol compound for diagnosing, monitoring and/or treating female sexual dysfunctions.

IT   375371-22-5P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
      (IR thermog. for measuring vasodilation or changes in blood flow following administration of nitric oxide donor)
RN   375371-22-5 HCAPLUS
CN   Thionitrous acid (HNOS), S-[2-[(3aR,4S,7R,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl]-1,1-dimethylethyl] ester, rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
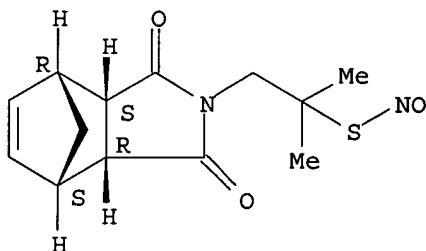
REFERENCE COUNT: 38   THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:hold
COST IN U.S. DOLLARS   SINCE FILE   TOTAL
                                                ENTRY   SESSION
FULL ESTIMATED COST   15.28   426.89

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)   SINCE FILE   TOTAL
                                                ENTRY   SESSION
CA SUBSCRIBER PRICE   -1.50   -8.25

  SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 16:26:32 ON 06 SEP 2006

Connecting via Winsock to STN

```
=> d his

        (FILE 'HOME' ENTERED AT 15:14:42 ON 06 SEP 2006)

        FILE 'REGISTRY' ENTERED AT 15:14:54 ON 06 SEP 2006
L1              STRUCTURE UPLOADED
L2          0 S L1 SSS SAM

        FILE 'HOME' ENTERED AT 15:15:38 ON 06 SEP 2006

        FILE 'REGISTRY' ENTERED AT 15:16:57 ON 06 SEP 2006
L3              STRUCTURE UPLOADED
L4          0 S L3 SSS SAM
L5         10 S L3 SSS FULL

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        FILE 'CAPLUS' ENTERED AT 15:18:07 ON 06 SEP 2006

        FILE 'HCAPLUS' ENTERED AT 15:18:44 ON 06 SEP 2006
L6          9 S L5
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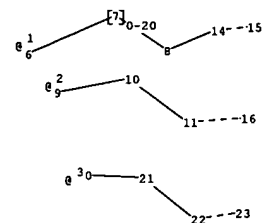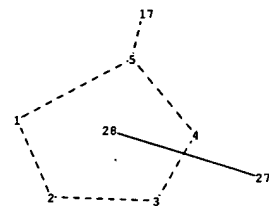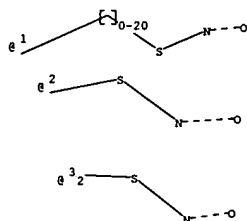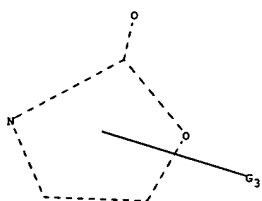
chain nodes :
    6 7 8 9 10 11 14 15 16 17 20 21 22 23 27

ring nodes :
    1 2 3 4 5

chain bonds :
    5-17 6-7 7-8 8-14 9-10 10-11 11-16 14-15 20-21 21-22 22-23

ring bonds :
    1-2 1-5 2-3 3-4 4-5

exact/norm bonds :
    1-2 1-5 2-3 3-4 4-5 5-17 7-8 8-14 9-10 10-11 11-16 14-15 20-21 21-22 22-23

exact bonds :
    6-7

G2:C,P,B,M,Cb,Cy,Hy,Id,Ak

G3:[*1],[*2],[*3]

Match level :
    1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS7:CLASS8:CLASS9:CLASS10:CLASS11:CLASS
    14:CLASS15:CLASS16:CLASS17:CLASS20:CLASS21:CLASS22:CLASS23:CLASS27:CLASS28:CLASS